

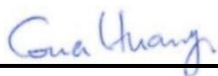
RF EXPOSURE EVALUATION REPORT

FCC ID : 2AEUPBHASC0111
Equipment : Security Camera
Brand Name : ring
Model Name : 5CCEA2
Applicant : Ring LLC
12515 Cerise Ave, Hawthorne, CA 90250, USA
Manufacturer : Ring LLC
12515 Cerise Ave, Hawthorne, CA 90250, USA
Standard : 47 CFR Part 2.1091

We, SPORTON INTERNATIONAL INC has been evaluated this product in accordance with 47 CFR Part2.1091 and it complies with applicable limit.

Sporton Lab is accredited to ISO 17025 by Taiwan Accreditation Foundation (TAF code: 3786) and the FCC designation No. TW3786 under the FCC 2.948(e) by Mutual Recognition Agreement (MRA) in FCC evaluation.

The results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC. Laboratory, the test report shall not be reproduced except in full



Approved by: Cona Huang / Deputy Manager



SPORTON INTERNATIONAL INC. Wensan Laboratory

No.58, Aly. 75, Ln. 564, Wenhua 3rd, Rd., Guishan Dist., Taoyuan City 333010, Taiwan



Table of Contents

1. DESCRIPTION OF EQUIPMENT UNDER TEST (EUT)	4
2. MAXIMUM RF AVERAGE OUTPUT POWER AMONG PRODUCTION UNITS	4
3. RF EXPOSURE LIMIT INTRODUCTION	8
4. RADIO FREQUENCY RADIATION EXPOSURE EVALUATION	9
4.1. Standalone Power Density Calculation	9
4.2. Collocated Power Density Calculation.....	9



History of this test report

Report No.	Version	Description	Issued Date
FA4O1404-01	Rev. 01	Initial issue of report	Jun. 20, 2025



1. Description of Equipment Under Test (EUT)

Product Feature & Specification	
EUT Type	Security Camera
Brand Name	ring
Model Name	5CCEA2
FCC ID	2AEUPBHASC0111
Wireless Technology and Frequency Range	WLAN 2.4 GHz Band: 2400 MHz ~ 2483.5 MHz WLAN 5.2 GHz Band: 5150 MHz ~ 5250 MHz WLAN 5.3 GHz Band: 5250 MHz ~ 5350 MHz WLAN 5.6 GHz Band: 5470 MHz ~ 5725 MHz WLAN 5.8 GHz Band: 5725 MHz ~ 5850 MHz Bluetooth: 2400 MHz ~ 2483.5 MHz LoRa(DTS): 902 MHz ~ 926.5 MHz LoRa(FHSS): 902.2 MHz ~ 927.8 MHz 24GHz Radar: 24.05GHz ~ 24.25GHz
Mode	WLAN: 802.11a/b/g/n/ac/ax HT20/VHT20/HE20 Bluetooth LE LoRa: DTS/FHSS 24GHz Radar: FMCW
EUT Stage	Identical Prototype

Reviewed by: Jason Wang

Report Producer: Paula Chen

2. Maximum RF average output power among production units

Band	Channel	Frequency	Data rate/BW	Tune-up Limit (dBm)
BT5.0	CH 00	2402 MHz	1M	14.50
BT5.0	CH 19	2440 MHz	1M	15.00
BT5.0	CH 39	2480 MHz	1M	14.50
BT5.0	CH 00	2402 MHz	2M	14.50
BT5.0	CH 19	2440 MHz	2M	15.00
BT5.0	CH 39	2480 MHz	2M	14.50
BT3.0	CH 00	2402 MHz	125K	13.50
BT3.0	CH 39	2441 MHz	125K	13.50
BT3.0	CH 78	2480 MHz	125K	13.50
BT5.0	CH 00	2402 MHz	500K	14.50
BT5.0	CH 19	2440 MHz	500K	14.50
BT5.0	CH 39	2480 MHz	500K	14.50
802.11b	CH 01	2412 MHz	1M	19.50
802.11b	CH 06	2437 MHz	1M	20.00
802.11b	CH 11	2462 MHz	1M	19.00
802.11g	CH 01	2412 MHz	6M	15.50
802.11g	CH 02	2417 MHz	6M	16.50
802.11g	CH 03	2422 MHz	6M	17.50
802.11g	CH 06	2437 MHz	6M	20.00
802.11g	CH 10	2457 MHz	6M	17.50
802.11g	CH 11	2462 MHz	6M	16.00
802.11n HT20	CH 01	2412 MHz	MCS 0	15.50
802.11n HT20	CH 02	2417 MHz	MCS 0	16.50
802.11n HT20	CH 03	2422 MHz	MCS 0	17.00
802.11n HT20	CH 06	2437 MHz	MCS 0	19.50
802.11n HT20	CH 10	2457 MHz	MCS 0	17.00



RF EXPOSURE EVALUATION REPORT

Report No. : FA4O1404-01

802.11n HT20	CH 11	2462 MHz	MCS 0	15.50
802.11ac VHT20	CH 01	2412 MHz	MCS 0	15.50
802.11ac VHT20	CH 02	2417 MHz	MCS 0	16.50
802.11ac VHT20	CH 03	2422 MHz	MCS 0	17.00
802.11ac VHT20	CH 06	2437 MHz	MCS 0	19.50
802.11ac VHT20	CH 10	2457 MHz	MCS 0	17.50
802.11ac VHT20	CH 11	2462 MHz	MCS 0	15.50
802.11ax HE20	CH 01	2412 MHz	MCS 0	15.50
802.11ax HE20	CH 01	2412 MHz	MCS 0	15.00
802.11ax HE20	CH 01	2412 MHz	MCS 0	15.00
802.11ax HE20	CH 01	2412 MHz	MCS 0	12.00
802.11ax HE20	CH 02	2417 MHz	MCS 0	16.50
802.11ax HE20	CH 06	2437 MHz	MCS 0	19.00
802.11ax HE20	CH 06	2437 MHz	MCS 0	18.50
802.11ax HE20	CH 06	2437 MHz	MCS 0	19.00
802.11ax HE20	CH 06	2437 MHz	MCS 0	19.00
802.11ax HE20	CH 10	2457 MHz	MCS 0	17.50
802.11ax HE20	CH 11	2462 MHz	MCS 0	15.50
802.11ax HE20	CH 11	2462 MHz	MCS 0	15.00
802.11ax HE20	CH 11	2462 MHz	MCS 0	15.00
802.11ax HE20	CH 11	2462 MHz	MCS 0	13.00
802.11a	CH36	5180 MHz	6M	18.50
802.11a	CH44	5220 MHz	6M	20.00
802.11a	CH48	5240 MHz	6M	20.00
802.11n HT20	CH36	5180 MHz	MCS 0	18.00
802.11n HT20	CH44	5220 MHz	MCS 0	20.00
802.11n HT20	CH48	5240 MHz	MCS 0	20.00
802.11ac VHT20	CH36	5180 MHz	MCS 0	18.00
802.11ac VHT20	CH44	5220 MHz	MCS 0	20.00
802.11ac VHT20	CH48	5240 MHz	MCS 0	20.00
802.11ax HE20	CH36	5180 MHz	MCS 0	17.50
802.11ax HE20	CH36	5180 MHz	MCS 0	13.50
802.11ax HE20	CH36	5180 MHz	MCS 0	15.00
802.11ax HE20	CH36	5180 MHz	MCS 0	15.50
802.11ax HE20	CH44	5220 MHz	MCS 0	20.00
802.11ax HE20	CH44	5220 MHz	MCS 0	15.50
802.11ax HE20	CH44	5220 MHz	MCS 0	17.00
802.11ax HE20	CH44	5220 MHz	MCS 0	19.50
802.11ax HE20	CH48	5240 MHz	MCS 0	19.50
802.11ax HE20	CH48	5240 MHz	MCS 0	13.50
802.11ax HE20	CH48	5240 MHz	MCS 0	17.00
802.11ax HE20	CH48	5240 MHz	MCS 0	19.00
802.11a	CH52	5260 MHz	6M	21.50
802.11a	CH60	5300 MHz	6M	21.00
802.11a	CH64	5320 MHz	6M	19.00
802.11n HT20	CH52	5260 MHz	MCS 0	21.00
802.11n HT20	CH60	5300 MHz	MCS 0	21.00
802.11n HT20	CH64	5320 MHz	MCS 0	18.50
802.11ac VHT20	CH52	5260 MHz	MCS 0	21.00
802.11ac VHT20	CH60	5300 MHz	MCS 0	21.00
802.11ac VHT20	CH64	5320 MHz	MCS 0	18.50
802.11ax HE20	CH52	5260 MHz	MCS 0	21.00
802.11ax HE20	CH52	5260 MHz	MCS 0	14.00
802.11ax HE20	CH52	5260 MHz	MCS 0	17.50
802.11ax HE20	CH52	5260 MHz	MCS 0	20.50
802.11ax HE20	CH60	5300 MHz	MCS 0	21.00
802.11ax HE20	CH60	5300 MHz	MCS 0	15.50
802.11ax HE20	CH60	5300 MHz	MCS 0	17.50



RF EXPOSURE EVALUATION REPORT

Report No. : FA4O1404-01

802.11ax HE20	CH60	5300 MHz	MCS 0	20.50
802.11ax HE20	CH64	5320 MHz	MCS 0	18.00
802.11ax HE20	CH64	5320 MHz	MCS 0	14.00
802.11ax HE20	CH64	5320 MHz	MCS 0	15.50
802.11ax HE20	CH64	5320 MHz	MCS 0	16.50
802.11a	CH100	5500 MHz	6M	20.00
802.11a	CH116	5580 MHz	6M	21.50
802.11a	CH140	5700 MHz	6M	19.00
802.11a	CH144	5720 MHz	6M	21.50
802.11n HT20	CH100	5500 MHz	MCS 0	19.00
802.11n HT20	CH116	5580 MHz	MCS 0	21.50
802.11n HT20	CH140	5700 MHz	MCS 0	19.00
802.11n HT20	CH144	5720 MHz	MCS 0	21.50
802.11ac VHT20	CH100	5500 MHz	MCS 0	19.00
802.11ac VHT20	CH116	5580 MHz	MCS 0	21.50
802.11ac VHT20	CH140	5700 MHz	MCS 0	19.00
802.11ac VHT20	CH144	5720 MHz	MCS 0	21.50
802.11ax HE20	CH100	5500 MHz	MCS 0	17.50
802.11ax HE20	CH100	5500 MHz	MCS 0	14.00
802.11ax HE20	CH100	5500 MHz	MCS 0	16.00
802.11ax HE20	CH100	5500 MHz	MCS 0	17.50
802.11ax HE20	CH116	5580 MHz	MCS 0	21.50
802.11ax HE20	CH116	5580 MHz	MCS 0	15.50
802.11ax HE20	CH116	5580 MHz	MCS 0	17.50
802.11ax HE20	CH116	5580 MHz	MCS 0	20.00
802.11ax HE20	CH140	5700 MHz	MCS 0	17.50
802.11ax HE20	CH140	5700 MHz	MCS 0	13.00
802.11ax HE20	CH140	5700 MHz	MCS 0	14.00
802.11ax HE20	CH140	5700 MHz	MCS 0	16.50
802.11ax HE20	CH144	5720 MHz	MCS 0	21.50
802.11ax HE20	CH144	5720 MHz	MCS 0	14.50
802.11ax HE20	CH144	5720 MHz	MCS 0	17.50
802.11ax HE20	CH144	5720 MHz	MCS 0	20.50
802.11a	CH149	5745 MHz	6M	20.50
802.11a	CH157	5785 MHz	6M	21.00
802.11a	CH165	5825 MHz	6M	20.50
802.11n HT20	CH149	5745 MHz	MCS 0	20.50
802.11n HT20	CH157	5785 MHz	MCS 0	20.50
802.11n HT20	CH165	5825 MHz	MCS 0	20.00
802.11ac VHT20	CH149	5745 MHz	MCS 0	20.50
802.11ac VHT20	CH157	5785 MHz	MCS 0	20.50
802.11ac VHT20	CH165	5825 MHz	MCS 0	20.50
802.11ax HE20	CH149	5745 MHz	MCS 0	20.50
802.11ax HE20	CH149	5745 MHz	MCS 0	20.50
802.11ax HE20	CH149	5745 MHz	MCS 0	20.00
802.11ax HE20	CH157	5785 MHz	MCS 0	20.50
802.11ax HE20	CH157	5785 MHz	MCS 0	20.50
802.11ax HE20	CH157	5785 MHz	MCS 0	20.50
802.11ax HE20	CH165	5825 MHz	MCS 0	20.00
802.11ax HE20	CH165	5825 MHz	MCS 0	20.00
802.11ax HE20	CH165	5825 MHz	MCS 0	20.00
802.11ax HE20	CH165	5825 MHz	MCS 0	19.50



RF EXPOSURE EVALUATION REPORT

Report No. : FA4O1404-01

Band	Channel	Frequency	Data rate/BW	Tune-up Limit (dBm)
LoRa-DTS-SF7	L	902.5 MHz	500kHz	23.50
	M	914.5 MHz	500kHz	23.00
	H	926.5 MHz	500kHz	23.00
LoRa-DTS-SF8	L	902.5 MHz	500kHz	24.00
	M	914.5 MHz	500kHz	24.50
	H	926.5 MHz	500kHz	24.50
LoRa-DTS-SF9	L	902.5 MHz	500kHz	24.50
	M	914.5 MHz	500kHz	24.50
	H	926.5 MHz	500kHz	24.50
LoRa-DTS-SF10	L	902.5 MHz	500kHz	22.50
	M	914.5 MHz	500kHz	23.50
	H	926.5 MHz	500kHz	24.50
LoRa-DTS-SF11	L	902.5 MHz	500kHz	23.50
	M	914.5 MHz	500kHz	24.00
	H	926.5 MHz	500kHz	24.50
LoRa-FHSS-SF7	L	902.2 MHz	125kHz	23.50
	M	915 MHz	125kHz	23.00
	H	927.8 MHz	125kHz	23.00
LoRa-FHSS-SF8	L	902.2 MHz	125kHz	24.50
	M	915 MHz	125kHz	24.50
	H	927.8 MHz	125kHz	23.50
LoRa-FHSS-SF9	L	902.2 MHz	125kHz	23.50
	M	915 MHz	125kHz	24.00
	H	927.8 MHz	125kHz	24.50
LoRa-FSK-50K	L	902.2 MHz	50kbps	23.50
	M	915 MHz	50kbps	23.00
	H	927.8 MHz	50kbps	24.00
LoRa-FSK-150K	L	902.4 MHz	150kbps	23.50
	M	915.2 MHz	150kbps	23.00
	H	927.6 MHz	150kbps	24.00
LoRa-FSK-250K	L	902.5 MHz	250kbps	23.50
	M	915 MHz	250kbps	24.50
	H	927.5 MHz	250kbps	24.50

Mode	Tune-Up Limit (dBm)
24GHz Radar	3.7



3. RF Exposure Limit Introduction

According to ANSI/IEEE C95.1-1992, the criteria listed in Table 1 shall be used to evaluate the environmental impact of human exposure to radio frequency (RF) radiation as specified in §1.1310.

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm ²)	Averaging time (minutes)
(A) Limits for Occupational/Controlled Exposures				
0.3-3.0	614	1.63	*(100)	6
3.0-30	1842/f	4.89/f	*(900/f ²)	6
30-300	61.4	0.163	1.0	6
300-1500			f/300	6
1500-100,000			5	6
(B) Limits for General Population/Uncontrolled Exposure				
0.3-1.34	614	1.63	*(100)	30
1.34-30	824/f	2.19/f	*(180/f ²)	30
30-300	27.5	0.073	0.2	30
300-1500			f/1500	30
1500-100,000			1.0	30

The MPE was calculated at 20 cm to show compliance with the power density limit.

The following formula was used to calculate the Power Density:

$$S = \frac{PG}{4\pi R^2}$$

Where:

S = Power Density

P = Output Power at Antenna Terminals

G = Gain of Transmit Antenna (linear gain)

R = Distance from Transmitting Antenna

4. Radio Frequency Radiation Exposure Evaluation

4.1. Standalone Power Density Calculation

Band	Antenna Gain (dBi)	Maximum Power (dBm)	Maximum EIRP (dBm)	Maximum PG (mW)	Power Density at 20cm (mW/cm ²)	Limit (mW/cm ²)	Power Density / Limit
2.4GHz WLAN	2.8	20.0	22.8	190.55	0.038	1.000	0.038
5.2GHz WLAN	2.0	20.0	22.0	158.49	0.032	1.000	0.032
5.3GHz WLAN	3.0	21.5	24.5	281.84	0.056	1.000	0.056
5.5GHz WLAN	4.0	21.5	25.5	354.81	0.071	1.000	0.071
5.8GHz WLAN	3.2	21.0	24.2	263.03	0.052	1.000	0.052
Bluetooth	2.0	15.0	17.0	50.12	0.010	1.000	0.010
LoRa (DTS)	1.0	24.5	25.5	354.81	0.071	0.601	0.117
LoRa (FHSS)	1.0	24.5	25.5	354.81	0.071	0.601	0.117
24GHz Radar	2.0	3.7	5.7	3.72	0.001	1.000	0.001

4.2. Collocated Power Density Calculation

WLAN 2.4GHz Power Density / Limit	Bluetooth Power Density / Limit	LoRa Power Density / Limit	24G Radar Power Density / Limit	Σ (Power Density / Limit)
0.038	0.010	0.117	0.001	0.166

WLAN 5GHz Power Density / Limit	Bluetooth Power Density / Limit	LoRa Power Density / Limit	24G Radar Power Density / Limit	Σ (Power Density / Limit)
0.071	0.010	0.117	0.001	0.199

Note:

1. Σ (Power Density / Limit): This is a summation of [(power density for each transmitter/antenna included in the simultaneous transmission)/ (corresponding MPE limit)]
2. Considering the transmitters collocation of the EIRP performance listed in the table above, the aggregated (power density /limit) is smaller than 1, and MPE of 4 collocated transmitters is compliant.

Conclusion:

According to 47 CFR §2.1091, the RF exposure analysis concludes that the RF Exposure is FCC compliant.